

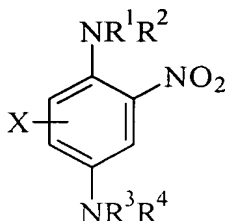
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*What is claimed is:*

**CLAIMS**

1. The use of 2-nitro-p-phenylenediamine derivatives corresponding to formula (I):



(I)

in which R<sup>1</sup> to R<sup>4</sup> independently of one another represent hydrogen, a C<sub>1-4</sub> hydroxyalkyl group or a saturated, mono- or polyunsaturated C<sub>5</sub> ring which may optionally be substituted by a C<sub>1-4</sub> alkyl group, a halogen atom, a hydroxy group and/or an amino group and X is hydrogen or a halogen atom, with the proviso that at least one of the substituents R<sup>1</sup> to R<sup>4</sup> is a C<sub>5</sub> ring,

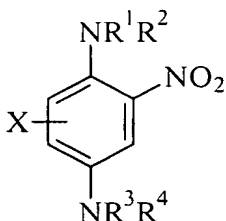
as a substantive dye for shifting hair colors and tints into the red region.

2. The use claimed in claim 1, characterized in that X stands for hydrogen.

3. The use claimed in claim 1 or 2, characterized in that R<sup>2</sup> to R<sup>4</sup> stand for hydrogen.

4. The use claimed in any of claims 1 to 3, characterized in that the compound corresponding to formula (I) is 1-(N-cyclopentylamino)-2-nitro-4-aminobenzene.

5. A preparation for coloring and tinting keratin fibers, more particularly human hair, characterized in that it contains as substantive dye at least one 2-nitro-p-phenylenediamine derivative corresponding to formula (I):



(I)

in which  $\text{R}^1$  to  $\text{R}^4$  independently of one another represent hydrogen, a  $\text{C}_{1-4}$  hydroxyalkyl group or a saturated, mono- or polyunsaturated  $\text{C}_5$  ring which may optionally be substituted by a  $\text{C}_{1-4}$  alkyl group, a halogen atom, a hydroxy group and/or an amino group and  $\text{X}$  is hydrogen or a halogen atom, with the proviso that at least one of the substituents  $\text{R}^1$  to  $\text{R}^4$  is a  $\text{C}_5$  ring.

6. A preparation as claimed in claim 5, characterized in that  $\text{X}$  stands for hydrogen.
7. A preparation as claimed in claim 5 or 6, characterized in that  $\text{R}^2$  to  $\text{R}^4$  stand for hydrogen.
8. A preparation as claimed in any of claims 5 to 7, characterized in that the compound corresponding to formula (I) is 1-(N-cyclopentylamino)-2-nitro-4-aminobenzene.
9. A preparation as claimed in any of claims 5 to 8, characterized in that it additionally contains at least one other substantive dye.
10. A preparation as claimed in any of claims 5 to 9, characterized in that it is free from oxidation dye precursors.
11. A preparation as claimed in claim 10, characterized in that it remains on the hair.
12. A preparation as claimed in claim 10 or 11, characterized in that it is a hair-setting preparation.
13. A preparation as claimed in any of claims 5 to 9, characterized in that it additionally contains at least one primary intermediate.
14. A preparation as claimed in claim 13, characterized in that the

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primary intermediate is selected from p-phenylenediamine, p-toluylenediamine, p-aminophenol, 1-(2'-hydroxyethyl)-2,5-diaminobenzene, N,N-bis-(2-hydroxyethyl)-p-phenylenediamine, 4-amino-3-methylphenol, 4-amino-2-((diethylamino)-methyl)-phenol, 2-aminomethyl-4-aminophenol, 5 2,4,5,6-tetraaminopyrimidine, 2-hydroxy-4,5,6-triaminopyrimidine, 4-hydroxy-2,5,6-triaminopyrimidine and 4,5-diamino-1-(2'-hydroxyethyl)-pyrazole.

15. A preparation as claimed in claim 13 or 14, characterized in that it additionally contains a secondary intermediate selected from the group 10 consisting of 1-naphthol, 1,5-, 2,7- and 1,7-dihydroxynaphthalene, 3-aminophenol, 5-amino-2-methylphenol, resorcinol, 4-chlororesorcinol, 2-chloro-6-methyl-3-aminophenol, 2-methyl resorcinol, 5-methyl resorcinol, 2,5-dimethyl resorcinol and 2,6-dihydroxy-3,4-diaminopyridine.

16. A preparation as claimed in any of claims 5 to 15, characterized in 15 that it additionally contains an anionic, nonionic or cationic polymer.

17. A preparation as claimed in any of claims 5 to 16, characterized in that it contains at least one surfactant.

18. A preparation as claimed in any of claims 5 to 17, characterized in that it contains at least one conditioning component.

